Crystallization and preliminary X-ray crystallographic analysis of a thermostable organic solvent-tolerant lipase from Bacillus sp. strain 42.

ABSTRACT

An organic solvent-tolerant lipase from Bacillus sp. strain 42 was crystallized using the capillary-tube method. The purpose of studying this enzyme was in order to better understand its folding and to characterize its properties in organic solvents. By initially solving its structure in the native state, further studies on protein-solvent interactions could be performed. X-ray data were collected at 2.0 Å resolution using an in-house diffractometer. The estimated crystal dimensions were 0.09 0.19 0.08 mm. The crystal belonged to the monoclinic space group C2, with unit-cell parameters a = 117.41, b = 80.85, c = 99.44 Å, β = 96.40°.

Keyword: Counter diffusion; 42 lipase; Bacillus sp. strain 42; lipases; Organic solvent tolerance